

*Definitive Technology*<sup>®</sup>  
The Leader in High-Performance Loudspeakers<sup>®</sup>

# StudioMonitor 350 • 450

Audio/Video Magnetically Shielded Loudspeakers

## **Owner's Manual**

### *Congratulations*

Congratulations on your purchase of a Definitive Technology StudioMonitor Audio/Video Loudspeaker System. These superb loudspeakers utilize state-of-the-art components (cast-basket homopolymer-coned bass-midrange drivers, moving coil ferrofluid-cooled pure aluminum dome high frequency radiator, long excursion pressure coupled subwoofer, uniphase crossover networks, etc.), a non-resonant monocoque cabinet, low diffraction construction and complete magnetic shielding, in order to achieve the most lifelike sound possible in your listening room for many years to come.

The Definitive Technology StudioMonitors are compact high definition loudspeaker systems designed for use in audio/video systems of the highest quality. Because of their compact size, wide range, high power handling and natural articulate clarity, they are ideal for use as a left main, right main, and center speaker (which may be stand, shelf, wall or in-cabinet mounted) in conjunction with all surround sound decoding systems, including Dolby Pro Logic\*, Dolby Digital AC-3\*, DTS\*, Dolby Digital EX\*, as well as all 6.1 and 7.1 systems. In addition, the StudioMonitors are ideal for use as rear or side surround speakers in all surround sound decoding systems or as audiophile quality main speakers in a high quality stereo system.

\*Registered Trademark

## Unpacking Your StudioMonitors

### Please Inspect For Shipping Damage

Each loudspeaker leaves our plant in perfect condition. Any visible or concealed damage most likely occurred in handling after it left our plant and should be reported at once to your Definitive dealer or the delivery company that delivered your loudspeaker. Please unpack your system carefully. Save all cartons and packing materials in case you move or need to ship your system. Record the serial number found on the back of the StudioMonitors in the appropriate place on your warranty card.

### Positioning the StudioMonitors in Your Room

The StudioMonitors are very flexible in terms of their positioning and placement requirements. They can be placed on a bookshelf, on or in an entertainment cabinet (in the open or enclosed behind a grille or door with appropriate opening to the room), on a stand, or mounted on the wall. They can be positioned vertically or horizontally (just be sure that if you position them horizontally that the side of the speaker where the woofer is located under the grill cloth — you can tell by feeling the cloth — faces up). The side of the speaker where the pressure coupled subwoofer is located should not be pressed right up against a wall or another object but should have at least 1 to 2" of clearance (the subwoofer side of the speaker can be very close to a side wall, just not pressed against it).

Please remember that although these recommendations are usually valid, all rooms and listening set-ups are somewhat unique, so do not be afraid to experiment with the speakers. Remember, whatever sounds best to you is correct.

The speakers should usually be placed a minimum of 5 to 7 feet apart and kept away from the side walls and corners if possible. A good rule of thumb is to place the speakers separated by one half the length of the wall they are positioned along, and each speaker one quarter the length of the back wall away from the side wall.

Speakers may be angled in toward the listening position or left parallel with the rear wall. Angling the speakers in (pointed directly at the listener) will result in a somewhat brighter, clearer sound with a sharper focus and a more solid central image (generally, we recommend this), while leaving the speakers parallel with each other will result in a less bright, more diffuse sound.

The StudioMonitors are mirror imaged (serial numbers have either an A or a B) with the side mounted, pressure coupled subwoofers located so they may be set up with both woofers facing in (toward each other) or both woofers facing out (away from each other). (Feel the side of the speakers to determine which side the woofer is on.) Facing the woofers in or out will vary the sound somewhat and which way is best will vary with your room. Again, experiment to determine the best location for the speakers. If you use a StudioMonitor for a center speaker, you may use either a speaker A or speaker B, and it may be positioned either vertically or horizontally. If it is used horizontally, make sure the subwoofer is facing up.

## Speaker Break-In

Your StudioMonitors should sound good right out of the box; however, an extended break-in period of 20-40 hours or more of normal playing is required to reach full performance capability. Break-in allows the suspensions to work in and results in fuller bass, a more open “blossoming” midrange and smoother high frequency reproduction.

## Connecting Your Loudspeakers

### Hooking Up Your StudioMonitors

Your StudioMonitors each have one pair of gold 5-way binding posts. Normally, you will hook up the left main/front channel red(+) terminal of your receiver or amplifier to the red(+) terminal of your left StudioMonitor and the left main/front channel black(-) terminal of your receiver or amplifier to the black(-) terminal of your left StudioMonitor. Connect the right channel main/ front channel red(+) terminal of your amplifier or receiver to the red(+) terminal of your right StudioMonitor and the black(-) terminal of the right main/front channel of your receiver or amplifier to the black(-) terminal of your right StudioMonitor. If your receiver/decoder has a bass management system and you are using a separate subwoofer, set bass management to “Small” left and right main speakers and “Yes” subwoofer. If you are not using a separate subwoofer, set bass management to “Large” left and right main speakers and “No” subwoofer.

## Using Your StudioMonitors with a Separate Subwoofer

*If you use a subwoofer, we strongly suggest using a Definitive PowerField SuperCube, PowerField or ProSub in order to achieve the highest level of sound quality possible.*

### With Dolby Digital Receivers and Decoders

Most systems using the StudioMonitors with a subwoofer will be Dolby Digital Systems. Simply hook the StudioMonitors up to the left and right front (main) channels (assuming you are using them as front speakers). Using a low-level RCA cable, hook the subwoofer up to the LFE output on your receiver or processor (if you are using a Definitive subwoofer input this LFE cable into the LFE input on the sub). Then set the bass management system on the receiver or decoder to “Small” left and right main speakers and “Yes” subwoofer. The circuitry inside the receiver or decoder will perform the necessary crossover functions.

### With Non-Dolby Digital Systems

With non-Dolby Digital systems, there are many options for using your StudioMonitors with a subwoofer. The specific hook-up will depend on the specific subwoofer you are using. With Definitive subwoofers, you can run the StudioMonitors full range (i.e. hook them up normally to the amplifier receiver) and connect the subwoofer to the sub-out with a low-level RCA cable (with Definitive subwoofers this would input into the left or right channel input). You would then set the woofer’s low-pass crossover — we would suggest starting around 80 Hz and then experiment up or down from there.

You also have the option with Definitive subwoofers of using the subwoofer’s built-in speaker level high-pass crossover as described in the subwoofer instruction manuals. In this case, also start with the subwoofer low-pass crossover at about 80 Hz and experiment.

## Use of StudioMonitors as Rear or Side Surround Speakers

StudioMonitors make excellent rear or side surround speakers. In order to use the StudioMonitors as rear or side surround speakers, simply hook them up as normal to the rear or side channel amplifier outputs of your system. Set the bass management system of your decoder to “Small” rear and/or side surrounds if your system is using a separate subwoofer, or “Large” rear or side surrounds if your system is not using a separate subwoofer.

## Setting Bass and Treble Controls on Your Receiver or Amplifier

Normally we recommend that you set the Bass and Treble controls on flat or 0 dB. This will give you the most linear and natural sound. Also, if your amplifier or receiver has a graphic equalizer, we recommend that you leave it flat. The reason for this is that we have spoken with many consumers about what they thought were improperly sounding speakers when in fact the problem was misadjusted tone controls. **When in doubt, leave them flat; this almost always sounds the best.**

## Using the Built-In Keyhole Wall Mount

Your StudioMonitors have a built-in keyhole wall mount on the back. If it has not been installed, install it over the recess that you can feel behind the grill cloth on the upper back of your StudioMonitor using the screws enclosed with the larger circular part of the keyhole facing down making sure that the screws are securely and firmly screwed in. Use a toggle or molly bolt to hold the screw which the keyhole mount will hang on making sure that it is rated to support at least 2 times the weight of the speaker. **Do not use on unanchored screws in the wall.**

## The StudioCinema™ Home Theater Systems

A complete StudioCinema Home Theater System combines a pair of StudioMonitors with a perfectly matched Definitive center channel speaker (or an additional StudioMonitor used as a center channel), perfectly matched Definitive rear and/or side surround speakers, and in most cases a separate subwoofer for the LFE channel. These superb systems offer exceptional home theater performance with all decoding technologies. Remember, to achieve proper blending and full performance, it is essential to use only Definitive speakers to complete your home theater system.

## Technical Assistance

It is our pleasure to offer assistance if you have any questions regarding your StudioMonitors or their set-up. Please contact your nearest Definitive Technology dealer or contact us directly at 410-363-7148 or [www.definitivetech.com](http://www.definitivetech.com).

## Service

Service and warranty work on your Definitive loudspeakers will normally be performed by the Definitive Technology dealer from whom you have purchased your loudspeakers. If, however, you wish to return the speaker to us, please contact us first, describing the problem and requesting authorization as well as the location of the nearest factory service center. **Please note that the address given in this booklet is the address of our offices only. Under no circumstances should loudspeakers be shipped to our offices or returned without contacting us first and obtaining return authorization.**

Definitive Technology Offices  
11433 Cronridge Drive  
Owings Mills, Maryland 21117  
Phone: 410-363-7148

**Visit us at [www.definitivetech.com](http://www.definitivetech.com)**

### VERY IMPORTANT: SETTING CHANNEL BALANCE AND BASS MANAGEMENT SYSTEMS

Dolby Digital and Dolby ProLogic systems and decoders have a critical channel balancing procedure for the left and right front speakers, center channel, rears and subwoofer (if it is hooked up through the LFE or Sub Out low level connection) which must be followed if the system is to perform properly. We have spoken with many system users with problems relating to the overall sound of their system which could be clearly traced back to improper system balance.

Also note that Dolby Digital decoders have bass management systems (systems which direct the bass to the various channels) which vary from unit to unit. This bass management system must also be properly adjusted. If your StudioMonitor is hooked up with speaker level wires and you are using a separate a subwoofer, your receiver or decoder's bass management system should be set for "Small" left and right main speakers and "Yes" subwoofer. If you have a PowerMonitor, C/L/R 2300, C/L/R 2500, or C/L/R 3000 center channel, you will usually set your decoder's bass management center channel setting to "Large" (however, don't be afraid to experiment). If not, set it to "Small." If you are using rear surround speakers with very extended low frequency response set the rear channels of your decoder's bass management system to "Large." If not, set them to "Small." If you are using StudioMonitors without a separate subwoofer, set bass management to "Large" left and right main speakers and "No" subwoofer. (Also, do not be afraid to experiment.) Remember, whatever sounds best to you is correct.

# StudioMonitors Preliminary Specifications

## StudioMonitor 350

### Dimensions

6<sup>15</sup>/<sub>16</sub>"W x 9<sup>11</sup>/<sub>16</sub>"D x 10<sup>11</sup>/<sub>16</sub>"H

### Frequency Response

26 Hz – 30 kHz

### Nominal Impedance

Compatible with 4 – 8 ohms.

(Set amp on 4 if you have a choice.)

### Driver Complement

5<sup>1</sup>/<sub>4</sub>" cast-basket polymer coned bass/mid range driver. 1" pure aluminum dome tweeter. 8" pressure-driven subwoofer.

### Recommended

### Associated Amplification

20 – 200 watts/channel

## StudioMonitor 450

### Dimensions

8<sup>3</sup>/<sub>8</sub>"W x 11<sup>7</sup>/<sub>16</sub>"D x 13"H

### Frequency Response

24 Hz – 30 kHz

### Nominal Impedance

Compatible with 4 – 8 ohms.

(Set amp on 4 if you have a choice.)

### Driver Complement

6<sup>1</sup>/<sub>2</sub>" cast-basket polymer coned bass/mid range driver. 1" pure aluminum dome tweeter. 10" pressure-driven subwoofer.

### Recommended

### Associated Amplification

20 – 225 watts/channel

**Limited Warranty:  
5-Years for Drivers and Cabinets,  
3-Years for Electronic Components**

Definitive Technology warrants to the original retail purchaser only that this Definitive Technology Loudspeaker Product (the "Product") will be free from defects in materials and workmanship for a period of five (5) years covering the drivers and cabinets, and three (3) years for the electronic components from the date of the original purchase from a Definitive Technology Authorized Dealer. However, this warranty will automatically terminate prior to the expiration of five (5) years for the drivers and cabinets and three (3) years for the electronic components if the original retail purchaser sells or otherwise transfers the Product to any other party. The original retail purchaser shall hereinafter be referred to as "you." Defective Products must be shipped, together with proof of date of purchase, prepaid insured to the Authorized Dealer from whom you purchased the Product, or to the nearest factory service center. Product(s) must be shipped in the original shipping container or its equivalent; in any case the risk of loss or damage in transit is to be borne by you. If, upon examination at the Factory or a Definitive Technology Authorized Dealer, it is determined that the unit was defective in materials or workmanship at any time during this Warranty period, Definitive Technology or the Definitive Technology Authorized Dealer will, at its option, repair or replace this Product at no additional charge, except as set forth below. All replaced parts and Product(s) become the property of Definitive Technology. Product(s) replaced or repaired under this Warranty will be returned to you, within a reasonable time, freight collect.

*This Warranty does not include service or parts to repair damage caused by accident, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage in excess of the rated maximum of the unit, cosmetic appearance of cabinetry not directly attributable to defects in materials or workmanship, or service, or repair or modification of the Product which has not been authorized by Definitive Technology. Definitive Technology makes no Warranty with respect to its Products purchased from dealers or outlets other than Definitive Technology Authorized Dealers. This Warranty is in lieu of all other expressed Warranties. If this Product is defective in material or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above. In no event will Definitive Technology be liable to you for any incidental or consequential damages arising out of the use or inability to use the Product, even if Definitive Technology or a Definitive Technology Authorized Dealer has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation may not apply to you.*

*All implied warranties on the Product are limited to the duration of this expressed Warranty. Some states do not allow limitation on how long an implied Warranty lasts, so the above limitations may not apply to you. This Warranty gives you specific legal rights, and you also may have other rights which vary from state to state.*



This product complies with the essential requirements of  
EMC directives 89/336/EEC and 73/23/EEC (inclusive of  
93/68/EEC) and carries the CE mark accordingly.